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ABSTRACT

The diversification of rural Minnesota is largely the result of the restructuring of the food processing industry and its recruitment of low-wage laborers. The relocation and expansion of food processing plants into rural areas of Minnesota creates a demand for low-wage labor that can not be met locally. Food processing businesses attract immigrant Latinos, Asians, and Africans, as well as U.S.-born minorities, seeking jobs that do not require high-level skills or English language proficiency. A study mapped the location of large food processing businesses (mostly meat packing plants) in rural Minnesota in relation to the percentage of school children for whom English was a second language and to changes in minority K-12 enrollment from 1991 to 2001. A strong relationship was found between the locations of food processing plants and homes where foreign languages were spoken. In the 16 school districts surrounding large plants, the 10-year change in total enrollment ranged from a 25 percent loss to a 16 percent gain, while minority enrollment increased in all districts (median increase 187 percent). The "new diversity" creates both benefits and challenges for rural communities. While increased school enrollments and numbers of working adults bring economic benefits to communities, challenges include a shortage of decent and affordable housing, the need for social services to help immigrants adjust, increased community tensions, and poor working conditions in the plants. (Contains 35 references.) (SV)

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by Katherine Fennelly, Ph.D. and Helga Leitner, Ph.D.
University of Minnesota

Working Paper No. 59
December 2002

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Abstract

In this paper we argue that the diversification of rural Minnesota is largely the result of the restructuring of the food processing industry, and the subsequent recruitment of low wage laborers. We begin with a brief discussion of demographic changes in the state as a whole, and in rural Minnesota. This is followed by an analysis of the relationship between the location of food processing industries and the diversity of the population, using different measures of diversity. We conclude with a discussion of the benefits and challenges that "new diversity" poses for rural communities.

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How the Food Processing Industry is Diversifying Rural Minnesota

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How the Food Processing Industry is Diversifying Rural Minnesota

Introduction

Minnesota has often been characterized as a largely "white" state, with little diversity, populated by persons of European ancestry-an image that is not wholly undeserved. Data from the 2000 census confirm that the vast majority of Minnesotans are White, non-Hispanics (89%) and that 86% of Minnesota residents claim European ancestry.[1] During the past decade, however, Minnesota has experienced a rapid increase in foreign-born residents of largely non-European ancestry that has received much attention in the print and broadcast media. The new immigrants from Asia, Africa and Latin America have been presented as creating Minnesota's "new diversity." The *St. Paul Pioneer Press,* for example, ran a 12-part series called "The New Faces of Minnesota" in the fall and winter of 2000. Such discourse generally focuses on the characteristics of new immigrants, without examining the underlying geographic and economic forces that lead immigrants to settle in particular parts of the state.

In this paper we argue that the diversification of rural Minnesota is largely the result of the restructuring of the food processing industry, and the subsequent recruitment of low wage laborers. We begin with a brief discussion of demographic changes in the state, as a whole, and in rural Minnesota. This is followed by an analysis of the relationship between the location of food processing industries and the diversity of the population, using different measures of diversity. We conclude with a discussion of the benefits and challenges that "new diversity" poses for rural communities.

Demographic Changes in Minnesota

The rate of increase in numbers of immigrants coming to Minnesota since 1990 has been dramatic, and there has been a related increase in the percentage of persons of color in the state. Between 1990 and 2000, the Black and Asian populations approximately doubled, and the Latino population grew by 166% — the fastest rate of increase in the Midwest (McConnell, 2001). The majority of Latinos in the state are Mexicans and Mexican-Americans, although increasing numbers of Central Americans have come to Minnesota seeking jobs in recent years. Most Latinos enter the U.S. as immigrants; a smaller, but unknown percentage enter the country without visas. The Mexican-origin population includes a mix of U.S. citizens and permanent residents (including long term residents of Minnesota) and Mexicans from both sides of the Texas-Mexico border. The latter group can be further subdivided into individuals who come to Minnesota for seasonal work in agriculture, and those who have settled here.[2] Rural Latinos lag behind rural Whites and urban minorities on many economic indicators.[3]

Minnesota is among the top 10 states in numbers of refugees; since 1989 the percentage of immigrants who are refugees has ranged from 14-44% in Minnesota, as compared with 6-16% in the U.S. as a whole.[4] This means that the origin of foreign-born Minnesotans is strongly influenced by areas of the world from which refugees are fleeing. As a consequence, Minnesota has been the primary or secondary site of relocation of large numbers of refugees from Asia, the successor states of the former Soviet Union and from countries of Africa. Asians were the first refugees to arrive in Minnesota in significant numbers. In the mid-1970's, after the U.S. withdrawal from Indochina, large numbers of Hmong, Vietnamese and Laotians came to the United States, and several thousand were resettled in Minnesota. Thousands of Cambodians were also displaced by the Indochinese war and by political turmoil and famine under the Khmer Rouge regime. In 2000, there were close to 42,000 Hmong in Minnesota, about 18,500 Vietnamese, and between 5,500 and 6,500 Cambodians (U.S. Bureau of the Census, 2002).

African refugees are more recent arrivals to Minnesota. Thousands of East Africans have fled to other parts of Africa, Europe and North America as the result of civil wars and famine in Somalia, Eritrea and Ethiopia. Between 1992 and 1999, 29,000 Somali refugees arrived in the United States (U.S. Bureau of the Census, 2002) and the largest number moved to Minnesota. More recent refugee arrivals to Minnesota have fled conflicts in Sierra Leone, Zaire and the Sudan; in the latter country several hundred predominantly Christian refugees from the south have been settled in Minnesota after fleeing conflicts with the Moslem-backed government in northern Sudan (Holtzman, 2000).

The vast majority of immigrants and refugees in Minnesota settle in the Twin Cities metropolitan area. However, particularly during the past 15 years, increasing numbers of immigrants and refugees have moved to small towns and cities. This dispersal of immigrants into rural Minnesota has been closely associated with the changing geography of food processing. The relocation and expansion of food processing plants into rural areas in Minnesota, and the Upper Midwest more generally, creates a demand for low wage labor that cannot be met locally.[5] Food processing businesses attract Latinos, Asians and Africans seeking jobs that do not require high level skills or English language proficiency. In the south-central region of the state, as many as a third of the employees in food processing plants are estimated to be Latino (Bushway, 2001). Ads and informal information networks describing the availability of steady jobs on evisceration, processing and packaging lines at $8-$12 per hour attract these workers to rural communities. Others are recruited by company recruiters or labor contractors[6], or through employees who receive recruitment bonuses.

Rural Transformations

Since the 1950's — and particularly during the farm crisis of the 1980's — population losses have plagued many rural Minnesota communities (Amato and Amato, 2000). One 1995 demographic study projected a 50,000-population loss in rural agricultural communities by the year 2025. With the demise of small farms and an exodus of young people from rural areas came the loss of retail services, and an increase in the size of an aging population in need of costly health and social services (Gale, 2000). As a result, rural communities were left at a distinct disadvantage compared to urban and suburban areas. Fonkert (2001) compared rural and metro counties between 1987 and 1997, and found that the mean per capita income in rural communities ($20,569) was $9,000 less than that of metro communities.

These changes have coincided with a restructuring of farming and the livestock industry, characterized by dramatic increases in the scale of production, heightened concentration of market power among relatively few companies, and increased vertical integration (Flora et al., 1999).[7] Meat processing industries rely increasingly on contracts with local farmers to supply them with young hatchlings, piglets or calves, and with corn and soybeans for feed (USDA, 2000). The availability of these commodities is one reason for the widespread relocation of packing plants from urban to rural areas in the Midwest, and for their expansion (Broadway, 2000). Other reasons include lower wages in remote areas, less union activity (Drabenstott, 2000; Krissman, 2000) and lower transportation costs since animals are slaughtered, deboned, processed and packaged in one facility (Flora et al., 1999; Broadway, 2000).

Meat and poultry processing has grown to be a multi-billion dollar business in Minnesota, employing thousands of people in rural plants scattered across the state, with concentrations in the south-central region. In 1996, the meat industry in Minnesota employed 14,746 workers. Employment in that sector rose 32.3% in the state between 1988 and 1996, compared to only 21% in the U.S. during the same period (Reimer, 2000). Table 1 lists food processing plants in rural Minnesota that employ at least 100 employees.

Table 1. Rural[9] Minnesota Cities with Food Processing Plants Employing 100+ Persons, 2001

City	*Food Processing Plants*
Albert Lea	Farmland Foods*, Hudson, Holsum
Austin	Hormel**, Quality Pork**, Austin Packaging
Butterfield City	Butterfield Foods
Faribault	The Turkey Store (Jennie-0)**, Faribault Foods
Gaylord	M.G. Waldbaum Co.,
Long Prairie	Long Prairie packing Co.
Madelia	Tony Downs Food Co.
Marshall	Heartland Food
Melrose	Jennie-O**
Owatonna	Midwest Foods
Pelican Rapids	West Central Turkeys**
St. Charles	North Star Foods
St. James	Armour Swift Eckrich**; Tony Downs Food
Wells	Swift Eckrich
Willmar	Jennie-O**, Willmar Poultry Co.
Windom	PM Beef
Worthington	Swift & Co.**, Monfort Pork, Inc;.

* The Farmland Food plant in Albert Lea burned down in 2001 and has not reopened to date

** These plants have over 500 employees

Local officials in some communities view the processing of agricultural products as a means of generating employment and sustaining population numbers. To attract meat and poultry processing businesses they offer tax incentives and relax environmental regulations (Broadway, 2000). Krissman (2000) describes the international labor recruitment efforts that companies employ to maintain a steady flow of low wage workers. He notes that poverty in the country of origin is an inadequate explanation for large scale migration of undocumented workers, and describes international networks that provide labor intensive industries with a continuous flow of immigrant workers.

U.S. and foreign-born Latinos from Mexico and Central America, Asians from Vietnam, Cambodia and Laos, and Africans from Somalia and Sudan, comprise the majority of new workers in these plants, and their arrival has slowed — and in some cases reversed — the population loss in rural food processing communities. In 1997, the Minnesota State Planning Agency conducted case studies of 12 "turn around counties" — counties that had lost population in the 1980's, but gained population between 1990 and 1995. One of the factors they listed as contributing to the population growth was the "in-migration of immigrants and Latinos in counties with meat packing and food packing industries." (Minnesota Planning, 1997).

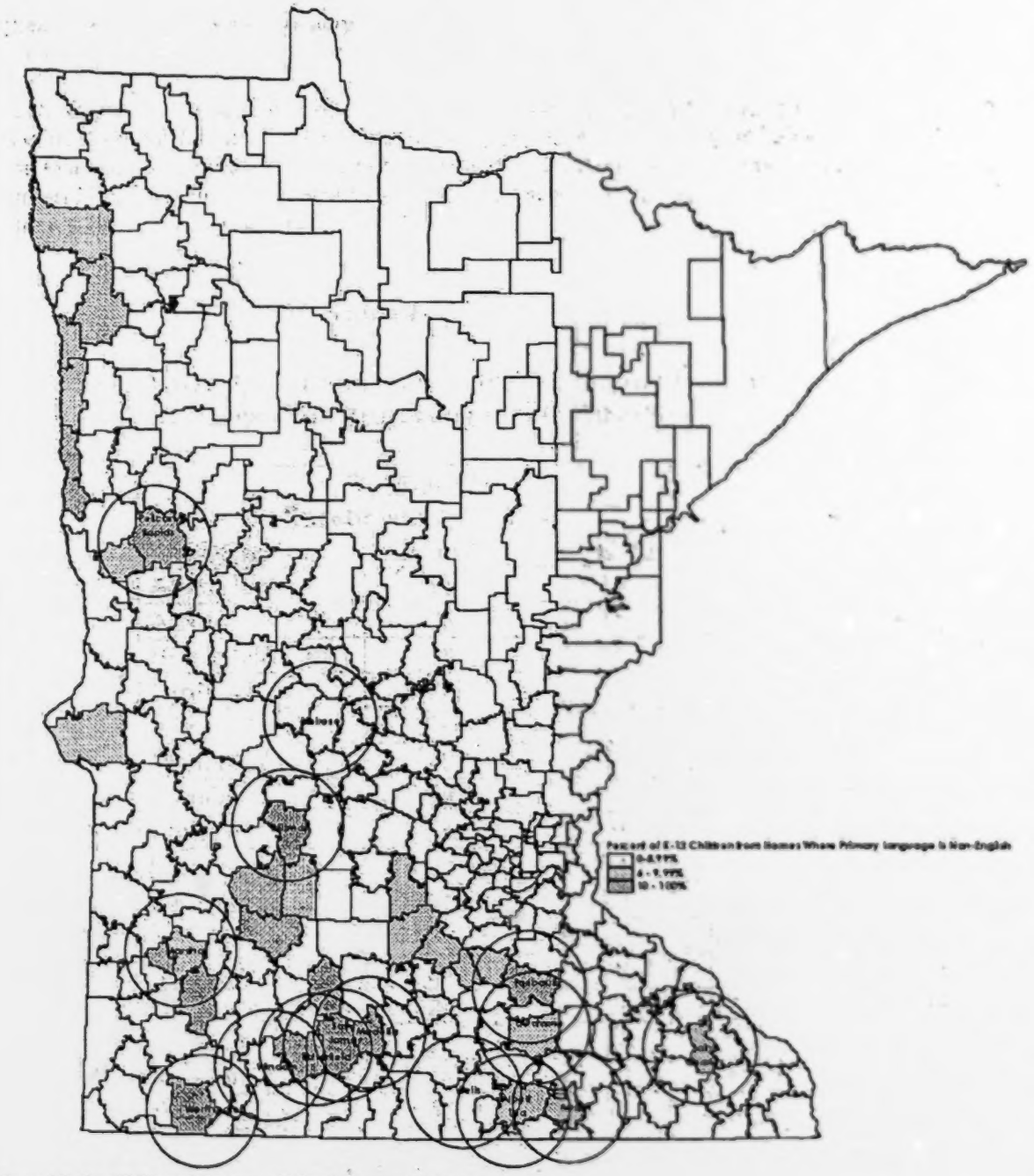
Measures of Diversity in Communities with Food Processing Businesses

In order to examine the relationship between the location of large food processing plants in rural[9] Minnesota we mapped the location of large food processing businesses[10] and the percentage of school children living in homes where English is not the primary language (see Fig. 1).[11]

Each circle on the map represents the area within 20 miles[12] of a large food processing plant.[13] The labels are the names of 16 cities or towns in which the plants are located (the plant names in each location are shown in Table 1). The geographic units on the map are school districts, shaded according to the percentages of children in K-12 schools in the district who live in homes where English is not the primary language. The highest percentages of non-English speaking families are in the patterned districts (10-38%), followed by the solid gray-shaded districts (6-9.99%), and white (0-5.99%). Although the correlation is not perfect, there is clearly a strong relationship between the location of food processing plants and foreign languages spoken in the homes. The greatest concentrations of non-English language households are found in Worthington, Butterfield, St. James, Madelia and Faribault — sites of major pork, poultry and vegetable processing plants, such as Swift & Co., Monfort Park Inc., Campbell Soup, Butterfield Foods, Tony Downs Food, Jennie-O and Faribault Foods (see Table 1).

FIG. 1. IMMIGRATION AND FOOD PROCESSING PLANTS

Rural Cities and Towns within 20 miles of Food Processing Plants and Percentage of Students in K-12 Grades who Live in Homes where English is Not the Primary Language*



**Rural Cities are defined as <50,000 population; geographic boundaries are school districts.*

***Excludes one Ojibwe Indian District Reservation*

Source: Analysis-Office of Technologies, August 2002

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Table 2. Percent Minority Enrollment in Rural Minnesota Schools Near Large Food Processing Plants (2000-01)

% Minority Enrollment 2000-2001

DISTRICT	K ONLY	K-12
Albert Lea	18	14
Austin	18	15
Butterfield City	38	26
Faribault	28	17
Sibl. E (Gaylord)	20	16
Madelia	40	27
Marshall	24	17
Melrose	16	9
Owatonna	15	14
Pelican Rapids	25	19
St. Charles	21	10
St. James	39	28
US Central Wells	24	7
Willmar	32	24
Windom	14	5
Worthington	51	35

Another proximate measure of diversity is minority enrollment in public schools. Unfortunately, measures of race/ethnicity reported by school districts do not distinguish between immigrants and non-immigrants. Africans and African-Americans, Asians and Asian Americans, Latinos and U.S.-born Chicano/Latinos are categorized as "Blacks" "Asians" and "Hispanics," respectively, and all three categories combined are reported as "minorities."[14] However, in rural Minnesota communities with few U.S.-born minorities, race/ethnicity is a reasonably good proxy for concentrations of new immigrants.[15]

Table 2 shows the percentages of minority students enrolled in kindergarten and in K-12 classes in rural school districts[16] near food processing plants in the school year 2000-2001. In that year K-12 minority enrollment in these districts ranged from 5% in Windom to 35% in Worthington. Five of these districts near food processing plants had one-fifth or more minority students.

FIG. 2. K-12 ENROLLMENTS WITH AND WITHOUT MINORITY STUDENTS

Rural Minnesota Districts Near Food Processing Plants

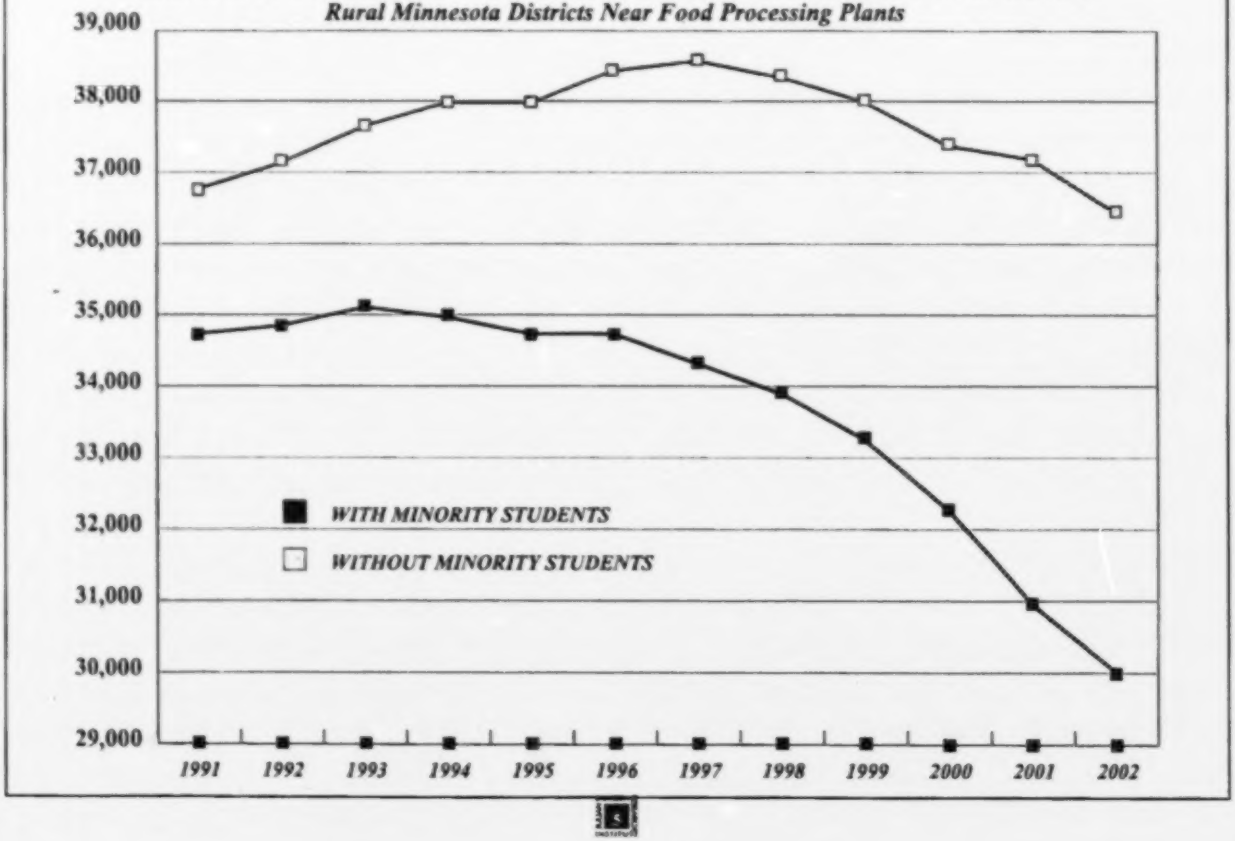

Table 3. Numerical and Percentage Changes in Total and Minority Enrollment in Rural Minnesota Schools near Large Food Processing Plants, 1991-2001

	TOTAL K-12 ENROLLMENT		*MINORITY ENROLLMENT*	
DISTRICT	**# CHANGE**	**% CHANGE**	**# CHANGE**	**% CHANGE**
Albert Lea	-378	-9	215	65
Austin	136	3	450	238
Butterfield City	-68	-25	22	69
Faribault	-131	-3	503	244
Sibley E Gaylord	-88	-6	157	249
Madelia	50	9	85	106
Marshall	142	6	261	184
Melrose	179	13	142	14,200
Owatonna	714	16	503	342
Pelican Rapids	172	15	169	211
St. Charles	106	11	20	24
St. James	-10	-1	216	138
US Central Wells	-253	-20	52	248
Willmar	-188	-4	526	90
Windom	-93	-8	18	47
Worthington	51	2	547	189
NET CHANGE	***+341***		***+3,886***	***MEDIAN=187***

The percentage of minority students currently enrolled in kindergarten classes is a measure of diversity that can be used to make rough estimates of future trends.[17] In the school year 2000-2001, 11 of the 16 rural districts surrounding large food processing plants in Minnesota had kindergarten classes with a fifth or more minority students, and four (Worthington, Madelia, St. James and Butterfield City) had a third or more (see Table 2). The city of Worthington, in the 1990-91 school year for example, had only 8% minority children (primarily Latino). Ten years later the percentage was 35% in K-12 classes and 51% in the kindergarten class.

Table 3 shows percentage changes and numerical increases or decreases in enrollment for total K-12 students and for minority students over the same 10-year period. Ten of the 16 districts experienced increases in minority enrollment of over 100% between 1991 and 2000, at a time when a number of these districts had net losses of population and school enrollment. While the median increase in minority enrollment for the decade was 187%, in some districts, such as Willmar, Owatonna and Faribault, minority enrollment rose over 500 students each. The numerical increase in minority students has compensated for the majority enrollment decline in many of these districts. As Table 3 and Fig. 2 show, overall K-12 enrollment figures would have declined dramatically in 12 of the 16 districts were it not for the absolute increase in minority students.

Discussion and Conclusions

Food processing is one of the fastest growing industries in the U.S. There are over 26,000 food processing plants in the U.S., employing 1.5 million workers. The explosive growth of the industry creates a demand for low-wage workers that cannot be met with U.S.-born employees. Much of the success of food processing plants is part of a larger phenomenon described by Allensworth and Rochín (1998) as 'peripheralization of the core,' in which employment becomes increasingly deskilled, with lower wages and less desirable working conditions. "The processes of restructuring and immigration reinforce each other — restructuring of industry creates demand for low-wage workers, while the availability of low-wage workers allows for continuing industrial restructuring." In rural Minnesota, communities with large food processing plants, these processes have helped turn around population losses and school enrollment decline, while significantly diversifying their ethnic and racial make-up.

Long-term fiscal impacts attributable to an influx of immigrants are complex and difficult to measure. In rigorous research sponsored by the National Research Council (Smith and Edmonston, 1997) found that most studies overstate the negative fiscal impacts of immigration on communities because "they generally include U.S.-born children of immigrants while they are of school age (and hence costly), while excluding them at later ages when they are in the labor force and contributing to the economy" (p.9) The authors conclude that "combining the costs of all programs, there is little difference between immigrants and the native born" (p.11). In Minnesota, Kielkopf (2000) used 1998 EEOC survey data of private sector firms with over 100 employees for a regional input-output analysis of the economic impact of Latino workers in south central Minnesota — the region of the state with the most food processing plants. He estimated that through direct, indirect and induced[11] effects the Latino workforce contributed $484 million annually to the regional economy — almost 10% of total economic growth. Kielkopf also estimated that Latino workforce led to an increase of $45 million in state and local tax revenues and $76 million in federal tax revenues, almost double the expenditures for additional services for the Latino population at the local, state and federal levels.

In this paper we have demonstrated that there is a strong correlation between the location of food processing plants and increases in minority and non-English-speaking residents in rural Minnesota. Because school funding formulas in most states are based upon average daily enrollment (American Association of School Administrators, 2000), new immigrants and their families have helped to stem or slow down school budget declines in many communities. In Minnesota, the median per pupil revenue is $7,975 (Korkins, 2001). In addition, school districts receive one FTE teacher per 40 Limited English Proficiency (LEP) students, and LEP students are weighted an additional 0.15 in the school funding formula (Thompson and Silvernail, 2000). Geller (2001) has calculated that the increase in Latino pupils alone in school districts in south central Minnesota added $8 million to school districts budgets.

In spite of the economic benefits of increased school enrollments and working adults, analysts also generally acknowledge the challenges faced by rural communities with large numbers of new immigrants. Ironically, although the federal government benefits most from taxes paid by immigrants, it has devolved many of the costs of basic services to states, counties and municipalities, thus placing a disproportionate burden on localities experiencing rapid immigration.

Providing sufficient decent and affordable housing to the new immigrants constitutes a major challenge for receiving towns. Minnesota had one of the lowest rental vacancy rates in the United States in 1999 (Office of the Legislative Auditor, 2001). In a policy brief on affordable housing, the Children, Youth and Family Consortium (2001) calculated that a family needs an income of $24,000-$25,000 per year to afford the average apartment rental cost of $600 in Minnesota. Entry-level food processing jobs typically pay less than this and the lack of safe,

affordable housing in rural communities is frequently cited as a problem of crisis proportions. The result is overcrowded rental units and a proliferation of trailer parks. The lack of alternatives also leads to exploitation of immigrants by some unscrupulous landlords.

When immigrants move to rural communities they not only need housing and social services, but also what Chavez (1992) has referred to as "links of incorporation... secure employment, family formation, the establishment of credit, capital accumulation, competency in English and legal status" (p.5). If these links remain out of the reach of workers in low-wage jobs, the result will be a marginalized population and increasing frictions between new and long-term residents. Indeed, studies of immigrant-host relations in food-processing towns, such as Garden City, Kan. by Broadway (2000), and our own research in a food processing town in rural Minnesota, suggest that rapid immigration of poor and culturally distinct workers and their families creates tensions. Many established residents resent the influx of new immigrants (Leitner and Fennelly, 2002).

In her research on the incorporation of immigrants into the receiving communities, Lamphere asks whether new immigrants are "being incorporated into local economies, gaining access to higher paying jobs and acquiring skills, or... facing discrimination and finding themselves trapped in low-wage unstable employment." Since most of the immigrants to rural Minnesota are relatively new, it is too early to know what opportunities they will have for upward mobility. However, the concentration of immigrant workers in low-skilled, low-paying jobs, the absence of unions and the high turnover rates in food processing plants provide few grounds for optimism.

Indeed, restructuring of the food processing industry, including de-unionization, plant closures and relocations and corresponding losses of jobs and income, has profound consequences not only for the new immigrants, but also more generally for rural communities highly dependent on this industry. If population diversity is to bring new vibrancy and revitalization to rural communities, local authorities and businesses need to work together to develop comprehensive plans that promote economic development and "links of incorporation" for all residents.

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Endnotes

1 First ancestry is reported in the 2000 Census Supplemental Survey (U.S. Census Bureau, 2001). The percentage of European/Canadian ancestry was calculated by the author with a denominator which excluded individuals who mentioned "U.S. or American" ancestry, or whose ancestry could not be classified.

2 Although reliable data are not available on the proportional breakdown of seasonal workers, in one study of Owatonna farmworkers 64% said that they were from Texas, 8% from other U.S. states, and 28% said that they had come to Minnesota from Mexico (Piceli, 1999).

3 Hispanics in the U.S. are more likely than non-Hispanics to be working, but are also more likely to be employed in low-paying jobs (Perez, 2001). The largest numbers of Asians in Minnesota are Hmong people — the poorest of all Asian immigrants in the U.S. (Hmong Research Project, 2000)

4 The definition of a refugee under U.S. and international law is "a person who is outside his/her country and is unable or unwilling to return to that country because of a well-founded fear that she/he will be persecuted because of race, religion, nationality, political opinion or membership in a particular social group." Ranges for the proportion of immigrants who are refugees in Minnesota were calculated by the Minnesota Department of Human Services, using Immigration Naturalization Services estimates of the numbers of refugees per state for the period 1989-1999 (Personal communication from Tim Gordon, DHS, June, 2002).

5 In one rural poultry processing business which we have studied 96% of the disassembly line jobs were held by immigrants, as compared with 15% of the jobs in maintenance, refrigeration, human resources and office work.

6 Contreras, et al., in Piceli (2001) surveyed 180 migrant farmworkers in Minnesota and found that 91% had been hired by company-paid crew leaders or 'contratistas.' We are unaware of similar research in food processing plants.

7 Large and highly diversified firms increasingly dominate food processing. Nationally, the 100 largest firms in the business account for about three-quarters of the sector's value added, up from half 30 years ago (USDA, 2000).

8 Non-metro cities with less than 50,000 population.

9 Rural cities are defined as having less than 50,000 residents as of the 2000 census.

10 Large businesses are defined as those that employ over 100 workers, or with retail sales of greater than $10 million.

11 The language data come from Department of Children, Families and Learning files (DCFL, 2001) and cover the school districts, which correspond to the cities or towns in which the plants are located. A measure of whether English is the primary language spoken in the home is likely to underestimate numbers of immigrants since a number of recent immigrants speak good English.

12 Twenty miles represents twice the average commuting distance in the U.S. (U.S. Department of Transportation, 1997).

13 A plant employing at least 100 persons.

14 Census data on the foreign born population for small geographic areas will not be available until late 2002.

15 The communities described in this paper have negligible numbers of Native Americans or African Americans. Therefore residents identified as "black" are likely to be African-born. Latinos include a mix of U.S. citizens (born in this country or naturalized), permanent residents, individuals with valid entry visas and undocumented workers. Precise and reliable estimates of the proportions of residents in these categories are extremely difficult to obtain because of the stigma of being identified as undocumented.

16 Population less than 50.

17 Of course these projections will be erroneous if plant closings or other factors lead disproportionate numbers of minority families to leave the community.

18 Direct effects are changes to the industries that hire Latino workers; indirect effects are effects on individuals who sell products that are affected by the industries; and induced effects include changes in the economy due to increases in Latino workers and farmers as consumers.

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